



*The University Library
Leeds*



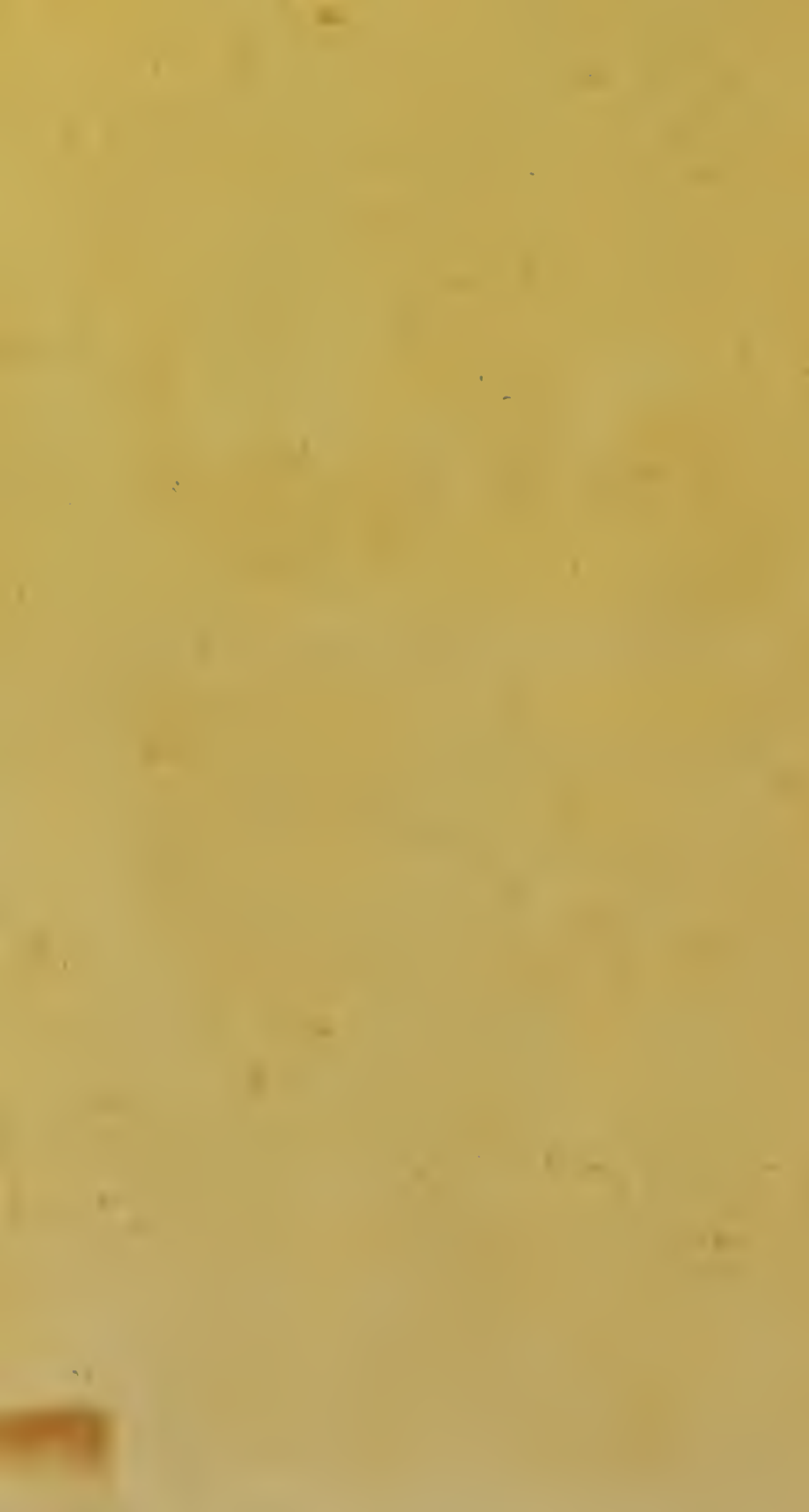
LEEDS UNIVERSITY LIBRARY

Classmark:

COOKERY
A PAR



3 0106 01123 3250





FRONTISPIECE.



- A. Moveable Fire place
 B. Cylindrical Boiler to be placed on A. C. Cover for B.
 D. Extracting perforated Cylinder to be placed within B.
 E. Centre
 FF. Coaters one to pack within the other
 G. Machine ready for use the Cover raised to show the internal

THE
DOMESTIC BREWER
AND
FAMILY WINE-MAKER,

WRITTEN WITH A VIEW TO ECONOMY AND EXCELLENCE,
AND ADAPTED TO THE USE OF
PRIVATE FAMILIES.

TO WHICH IS ADDED A DESCRIPTION OF
NEEDHAM'S PATENT BREWING APPARATUS,
AND THE USES TO WHICH IT MAY BE APPLIED.

BY B. PARKES.

WITH A PLATE.

LONDON:

HENRY WASHBOURNE, SALISBURY SQUARE,
C. C. WETTON, EGHAM.

1835.



S.11921.



INTRODUCTION.

FROM the increased and still increasing desire which prevails in almost every family in the kingdom, to brew their own beer, and as many families have deferred doing so, perhaps, from not having a sufficient insight to the process, it is hoped the following treatise upon the subject will not be found unacceptable; it being the author's intention to do away with all extraneous matter, and merely to adhere to the simple mode of brewing, founded upon practical knowledge, and adapted solely to

the use of private families. No reasoning, however specious, should induce the public to receive that as truth which cannot be proved by demonstration; and the author flatters himself they will find he has adhered to that principle.

The present work is divided into two parts; the First Part embracing the nature and process of brewing, following it through its different stages; with instructions how to choose malt and hops. The Second Part consists of instructions for the making of English wines: a branch of business which the author has made his most particular study for a number of years; and having brought them to a state of perfection, never before attained in this country, patronized as they have been by most of the nobility and

gentry in the kingdom, and the demand now daily increasing, he has been induced to write a treatise upon the manufacture of them. By a strict adherence to the instructions, he hopes his best friends (the public) will have reason to approve of his method: in fact he feels convinced they cannot equal his Wines by any other plan. For the convenience of families, he can very strongly recommend Needham and Co's Brewing Machines, and has annexed a plate with directions for using them. Should this little volume prove useful, his highest object will be fully attained.

CONTENTS.

PART I.

ON THE NATURE AND PROCESS OF BREWING, WITH INSTRUCTIONS FOR CHOOSING MALT AND HOPS.

	Page.
Observations preparatory to Brewing.....	1
Malt.....	2
Hops	3
Strong beer	ib.
Cooling	6
Fermentation	ib.
Casking	8
Fining	10
Mild ale	12
Table beer	16
Remarks	19
Cellarage	25
Porter	26
To brew five barrels of porter	29

	Page.
Amber, commonly called Twopenny	31
Gathering apples for cider.....	32
Prime cider.....	34
Draught cider.....	39
Inferior cider	41
Perry	ib.
Mead	46
Necessaries and cautions for the cellar	52

PART II.

INSTRUCTIONS FOR THE MAKING OF BRITISH WINES.

British wines	57
To make eighteen gallons of grape wine.....	59
Another way	60
Sherry wine	ib.
Another way to make eighteen gallons of Sherry wine	62
Madeira wine, eighteen gallons	63
Another way	ib.
Champaign wine	64
Frontiniac wine	65
Raisin wine	66
Another way	ib.

CONTENTS.

ix

	Page.
Orange wine, eighteen gallons	67
Two other ways.....	68
Lemon wine	69
Another way, eighteen gallons	70
Gooseberry wine	71
Two other ways	ib. 72
Ginger wine, eighteen gallons	73
Another way	74
White currant wine	ib.
Another way	75
Red currant wine	76
Black currant wine, eighteen gallons	77
Another way	78
Raspberry wine	ib.
Strawberry wine	79
Another way	80
Mulberry wine	ib.
Blackberry wine	81
Elder wine	82
Three other ways	83, 84, 85
Cherry wine	86
Plum wine	ib.
Birch wine	87
Cowslip wine	89
Two other ways	89, 90
Damson wine	91
Another way	92

	Page.
Apricot wine	93
Quince wine	94
Another way	ib.
Balm wine	95
Sage wine	96
Another way	97
Elder-flower wine	98
Another way	ib.
Elder-flower wine, very much like Frontinac	99
Turnip wine	100
An excellent family wine	101
Clary wine	102
Three other ways	103, 104
Marigold wine	105
Observations and Cautions	106
Vinous fermentation.....	108
Spiritous fermentation	109
Racking of wines	ib.
Fining	110

APPENDIX.

DIRECTIONS FOR BREWING WITH NEEDHAM & CO'S PATENT PORTABLE FAMILY BREW- ING MACHINE	111
---	-----

PART I.

ON THE

NATURE AND PROCESS OF BREWING,

WITH INSTRUCTIONS FOR CHOOSING

MALT AND HOPS.

OBSERVATIONS

PREPARATORY TO BREWING.

FIRST, with respect to the best season for brewing, moderate weather should be chosen, and I should particularly recommend the months from October to March. Be careful to examine your casks and utensils the day before; and let each cask be well cleansed with boiling water: the head should be taken out, and the inside of the casks well scrubbed,—as it frequently happens that good beer has been spoiled in consequence merely of the foulness of the casks. The moment a cask becomes empty, stop up the bung and tap holes tight, which will be a means of keeping them

2 PREPARATORY OBSERVATIONS.

always sweet. The mash-tub must be kept perfectly clean ; nor should the grains be left in the tub any longer than the day after brewing, lest they should sour the tub. Be careful likewise not to let the water stand too long in the coolers, as it will soak in, and soon turn putrid, and spoil the vessels.

As we cannot brew GOOD beer unless the materials are GOOD, the following directions how to choose your malt and hops should be particularly attended to.

MALT

Should be chosen by its round body, sweet smell, and thin skin ; if it bites easy, you may rely upon its being good ; if, on the contrary, you should find it hard, it has not had due attention paid to it in the malting, and consequently is not so good as that which is well-dried.

HOPS

Must be chosen by their bright green colour, sweet smell, and clamminess when rubbed in the hand.

Having thus made the necessary observations previous to your commencement of brewing, which should be particularly attended to, I shall first treat of

STRONG BEER,

Which is intended for keeping, and generally called OCTOBER, as most people prefer that month to brew their keeping beer.

It is sufficiently known that a pure, sweet soft water is preferable to hard, and generally brews the best beer; but, as soft

water is not to be obtained at all times, I would particularly recommend the use of the thermometer, by which means you may regulate the heat of your liquor or water, without the least fear or danger of spoiling your wort.

Having filled your copper and brought your water to boil, put as much water into the mash-tub as will wet 10 bushels of fine PALE malt, the quantity for brewing one hogshead of *strong* beer in two mashings (of the degree of heat in the first mashing of 165 degrees by the thermometer, and 175 degrees for the second mash); but if your water should be HARD, it should be 5 degrees hotter for each mashing. When you have got your liquor to the proper degree of heat, pour in the malt a little at a time, and let some person stir it about while it is putting in, and keep it well stirred for about three minutes, that you may be sure there are no lumps in the malt; after which cover the mash-tub over, and

let it stand for one hour and three quarters (during which time have another copper of water ready, equal to the first, and of the degree of heat I before mentioned); at the expiration of which time draw it off into the copper, turning the cock about half bore. When the whole is drawn off into the copper, put into it 3 lbs. of hops, which should be well rubbed in the hands to break them; make the fire up, and let the wort boil BRISKLY half an hour, and no longer; then draw it off into your coolers. When your second mashing has stood two hours, draw it off, as before, into the copper; then add the remaining 3 lbs. of hops, making together 6 lbs. to the hogs-head, and let it boil the same length of time with the hops of the last copper, and then let the wort run off into other coolers.

COOLING.

If the worts are not properly cooled, or if they are not put together at nearly an equal temperature, (which ought not to be under 55 degrees, nor above 60 degrees,) a very great difficulty may occur in the process of fermentation, which often cannot be remedied; and in this stage of brewing *particular attention* should be paid to the WORTS; if not, in summer-time they will frequently turn what is called *foxy*. Having run your worts according to my directions from the coolers into the tun, we proceed to

FERMENTATION.

When the wort is in the tun, get to work immediately upon the yeast. Care must be taken to get that which is per-

fectly good: and it must be mixed with a little of the wort first in a large bowl. Some of the wort must be saved for this purpose before it is put into the tun; to which add about a quart of good yeast, a handful of flour, and about an ounce of common salt; which stir well up together and then put into the tun. Cover it up close, and watch it from time to time carefully to see if the fermentation goes on as it should: if the fermentation proceeds gradually, there will be first a beautiful flowery head upon the surface of the wort, which will thicken in a short time to a yellowish white crust; and upon holding the head a little over it, there will be a sharp luxurious scent. The head will from this time thicken more and more, and the scent become more penetrating for the space of two days and nights; at the end of which time it will naturally abate, and by degrees cease: this will be ascertained by the falling of the head of the wort,

which shows that the fermentation is declining ; when the wort must be drawn off into the casks intended to keep the beer in.

CASKING.

Let the beer be drawn gently and carefully out of the working-tun, so as not to disturb the sediment of the wort, (which must be carefully avoided, and not put into the casks;) and fill the casks quite full, which will cause a second fermentation. This must be encouraged by filling up the casks two or three times a day with the wort you have reserved, as you find it working over; for, unless it is kept well filled up, it will not sufficiently cleanse itself. And when you find the working has entirely ceased, and no more yeast is thrown from the casks, stop up the casks close, and let them stand till the beginning of the following year; that is, supposing

the beer was brewed in October. In this time it will perfectly fine itself, if every attention has been paid to the brewing, according to our instructions; but it frequently happens, if the weather in the spring should be extremely warm, that it will occasion a slight fermentation, which we should endeavour to prevent by making a vent-hole in the casks, and letting it remain slightly put in, the whole of the summer, if there is any appearance of fermentation; which may be easily ascertained by putting the ear to the cask, when if there is a hissing noise, it shows it is upon a second fermentation.

If the examination of the beer should be omitted till the fermentation has got power over it, and the cask should not have been pegged, there would be danger of its bursting; for though a very little communication with the air would be sufficient, as we see by the opening of the vent-hole, yet, if the vessel were every way closed,

the power of the fermenting liquor would certainly destroy it. If any appearance of this sort should be discovered *in time*, the cask should stand with the vent-hole opened till autumn, or at least till the month of September, that being about the time when the fermentation naturally ceases;—as it was brought on by the encreasing temperature in the spring, and goes off as it cools in autumn.

FINING.

If the foregoing instructions are fully attended to, the beer will generally become beautifully bright in a short time; but in case you should not be able to allow it sufficient time to fine itself, the following method may be adopted, and will be found to have the desired effect, and at the same time be of no detriment to the beer. Take a quarter of a pound of picked isinglass,

and if you have any stale beer, put two gallons of it to the isinglass; let it stand for a day or two covered over, when it will soon dissolve. Then take a wisp made from a birch-broom, and whisk it about well till it is entirely mixed, and becomes a sort of jelly, and put into each hogshead a gallon of this fining; stir it well, and bung the cask up; and in the course of three days the beer will be perfectly bright. It will now be in a fit state either to drink, or to bottle. Where the intent is to drink it from the cask till there should be a reserve for bottling, the best way is to drink two thirds of the cask, and bottle the rest: which should be done when the beer is about twelve months old, if brewed when the weather is cool; and to give it every advantage, it should not be drank till it has been bottled twelve months.

MILD ALE

Is usually of less strength than beer, and is less flavoured with the hop, being intended to be drunk soon after it is brewed; not for keeping, as the strong beer is. This beer should be brewed alone, without making any small or table beer from it. The method of brewing is similar to brewing strong beer, and very little variation in regard to the operation with other beers.

The standard I shall fix for brewing this sort of beer will be, 8 bushels of fine pale malt to the hogshead of ale, with 6 lbs. of hops; which will make a very excellent drink.

Let the malt be ground a day or so before brewing: in fact, malt always brews better when ground a day before using. Put sufficient water into your copper to allow for the soaking up of the malt, and

to produce a clear hogshead of wort, with allowance also for waste in boiling, &c. Brisk up the fire, and put into the copper a handful of common salt when your liquor or water boils; put sufficient into the mash-tun or half the contents of the copper, at the degree of heat by the thermometer of 160 degrees for the first mashing; then pour in the malt as before, letting some person stir it all the while that it may not lump together. When it is well mashed, cover it up close, to prevent the steam from evaporating. Let it stand two hours, and draw it off gently into the copper, (having previously taken out the remainder of the liquor for the second mashing, which you must bring to the degree of heat of 170 degrees); to which add half the quantity of hops, and let it boil briskly for about 25 minutes; after which time draw it off into the coolers. When you have put your liquor in the second mashing, it must stand for two hours and a half: then draw this

wort off into the copper, to which add the remainder of the hops, together with the hops that had been previously boiled in the first wort, and let it boil briskly for half an hour.—But the eye will afford the principal criterion, as it varies considerably in different brewings, according to the weather, the quality of the malt, hops, &c.

Then let the wort be drawn from the copper into other coolers, and let them stand till they attain together 80 degrees of heat according to the thermometer. When they have arrived to the proper temperature, be careful, in drawing them off into the working-tun, that no sediment is drawn off with the wort; but leave it at the bottom of the coolers, and the clear wort will be then in perfectly good order for working. The several settlements of the worts will be an advantage to the ale, as they will be the means of cleansing it much sooner, and the quantity that is lost will be very trifling; but as this brewing is

intended to yield a clear hogshead of ale, and as we cannot afterwards make up any deficiency which may arise without a great injury to the beer, there must in the first place be three gallons of liquor allowed for each bushel of malt, that will be soaked up in the grains; and if half a gallon to the bushel besides, that is four gallons for the whole quantity, it will be sufficient for the sediment and wastage in boiling.

The wort being got into the tun, the manner of working is to be in all respects the same as that already directed for the strong beer. A quart of yeast will be sufficient, if it is good of its kind; and this is to be first put into a little of the wort in a bowl and mixed with the whole. The tun is then to be covered up, and kept to the right degree of working by the method before directed. After which it is to be got into the cask, by drawing it clear out of the working-tun, and leaving the sediment behind. A small quantity is to be

saved, to supply what is lost in working in the barrel. After this, when the working is thoroughly over, it is to be stopped down, and in a little time it will be fit to tap. If the materials were good, this will be an excellent and wholesome liquor.

TABLE BEER.

Most families have got into so regular a way of brewing their table beer after their ale, that it will not be easy to persuade them out of it; but they may be assured, that if they have any value for that kind of drink, it is their interest to brew it alone; for the trouble and expense are very little more than in the other way, and the drink is incomparably better. The method is very little different from the brewing of any other kind. As to the quantity of malt or strength of the beer, that may be at the pleasure of the

person; but, however it is intended in point of strength, the brewing should be performed at once; and all that is made should be of one kind, not a stronger first, and a weaker afterwards. We shall give directions at the rate of two bushels and a half to the hogshead, which will make a very excellent kind. Grind the malt as usual a day or two before brewing, to cool and mellow. Boil half a hogshead and two or three pails of water: this is the proper quantity for the first copper, as it will yield a clear half hogshead to the wort: just make it boil; let it out into the mash-tub, and let it stand to be somewhat cooler than for the stronger kinds of beer, (say 156 degrees by the thermometer); then pour in the malt, and stir it a good while very carefully together, not beating it about hastily to break it, but mixing it very well with the liquor; cover it up, let it stand two hours, then draw it off into a cooler, and put a pound and a half of hops;

put them into the receiver, and let the wort remain upon them. While this mash is standing, the same quantity of water must be brought to a due degree of heat. It should be somewhat hotter than the first, (about 160 degrees by the thermometer;) and when the mash-tub is drained pretty nearly dry, this must be let in. It is to stand two hours as the other did, and then to be run off to the rest in the receiver.

When the grains are well drained, the liquor is to be put into the copper with the hops; and it should boil briskly for about half an hour: for more boiling is necessary for these small worts than for the strong, nor does it do them so much mischief. After this the working is to be managed as in other cases; and the beer will be capable of keeping to a perfect fineness; and will far exceed that ordinary and poor kind, which only it is possible to make after other drinks. When such

small beer has stood to a due fineness, there is no wholesomer liquor. If the cellar be good and the season for brewing neither too warm nor cold, this beer will keep sound two or three months.

REMARKS.

The common brewers use many other ingredients in making their beers; and when they grow foul, or become stale, or otherwise faulty, they have many remedies to recover them. Those who will follow the directions I have given, will need no other expedients than malt, hops, and water, to make the most excellent of malt drinks; nor will they be apt to fail or become faulty: yet the best brewer may sometimes by accident or oversight, have his beer turn bad. I shall give the methods of prevention, when the danger is foreseen; or the methods that may be innocently and safely used when it has happened. The brewers use what they call

food, something that is to remain at the bottom of the cask, and upon which the drink lies and mellows. Often the finest part of its natural sediment answers this purpose; but when that is deficient, or more is required than will naturally result from its effects, the feeding paste is very proper. It is thus made:—

Dissolve two ounces of the finest Isinglass in as much strong beer as will thoroughly melt it; then add to this a pound and a half of good lump sugar. Let them stand till the sugar also is melted. Powder very fine three pounds of clean soft chalk, and one pound of white oyster shells, such as are sold at the druggist's; add to this, of the flour of malt, sifted fine, one pound and a quarter, and of powder of hops two ounces; grind these well together; then put in the syrup of isinglass, and beat up the whole, in a marble mortar, to a good paste; spread this upon a piece of paper on the back of a large sieve, and

lay it in the air to dry. When it is hard and dry, put it up for use. Two pounds of this is the proper quantity to put into a hogshead of drink; and it must be used in a like proportion for any lesser or greater quantity. If any small oversight has happened in the brewing, or if the season of the year has been unfavourable, or there may be any other cause to fear the drink may grow sour, or come to other harm; this, being put in at the fastening down the bung, will prevent the mischief. The beer will be fine, clean, soft, and well tasted, and keep without danger. If from any omission of this assistance when it was necessary, or from any other cause, a cask of beer grows unexpectedly foul and thick, and tastes, as it will always in that case, dead and muddy, the proper remedy is by a syrup of the hop, made with isinglass. The way to prepare it is this, and for a hogshead the following quantity:—
Rub to pieces a pound of fine fresh hops,

put them into a stone jar, and pour upon them as much boiling water as will cover them, without pressing them down: stop up the jar, and set it in a large pan of boiling water; pour away this as often as it cools, and put fresh boiling water in its place; in this manner keep the hops stewing, in the close jar, twelve hours; then let them stand twelve hours longer in the cold. After this, strain the liquor, without pressing the hops; dissolve in this two ounces and a half of beaten isinglass; and then, to every pint of the liquor, put a pound of lump sugar, and strain it through a flannel bag. When this is ready, clean and sweeten a fresh cask: burn two or three brimstone matches in it; then put in this syrup, draw off the beer out of the hogshead it was in carefully into this, and leave all the settlement behind. Bung it up, but leave the vent-hole open a little for three or four days; then stop it up entirely,

and let it stand three weeks; after which it will be perfectly fine.

It is found by experience, that the paler malt is dried, the shorter time beer will take in fining, and the sooner it will be fit for use; in fact, very brown or high-dried malt will not fine at all.

Various receipts are given to restore sour beer, which I lay before the reader for choice and experiment. Salt, made of the ashes of barley straw, put into the vessel, and stirred; or three or four handfuls of beech-ashes thrown into the vessel and stirred; or where the liquor is not very sour, a little put into a bag, without stirring: chalk calcined, oyster-shells, egg-shells burnt, sea-shells, crabs-eyes, alcalized coral, &c. do the same, as they have a great affinity for the acidity, which chemically combines with them. Beer, it is said, may be kept from turning sour in summer by hanging into the vessel a bag containing a new-laid egg pricked full of pin-holes, some laurel-

berries, and a few barley grains; or by a new-laid egg and walnut-tree leaves. Laurel-berries, their skin being peeled off, will keep beer from deadness; and beer already dead may be restored by impregnating it with fixed air.

Beer tasting of the cask may be freed from it by putting a handful of wheat into a bag, and hanging it in the vessel.

Thus have I given those rules, which my own experience has confirmed to me as the best, for producing fine transparent, and high-flavoured beers, &c. An inattention to any part of them may occasion a failure in some respect; but I rest satisfied that none will ever pursue my means entirely who will not contribute to their own convenience, and the delight of those who share their labours.

Something however yet remains, though of an adventitious nature; but to those who prefer knowing all that is necessary, I shall stand excused for introducing it.

CELLARAGE.

A cellar should be deep beneath the surface of the earth, the bottom laid on a proper descent, to permit all water to run off; and as much secluded from the air as possible. The roof of the cellars should be arched or vaulted, and should be situated underneath the Northern aspect of buildings. A ready communication between the brewhouse and cellar greatly facilitates the conclusive operations of brewing; and pipes or spouts, for the purpose of pouring the liquor, are very convenient; but in cold weather may, perhaps, chill too much. During the summer months, have the beer-cellar washed out weekly—it is not only pleasant, but keeps the beer fine and cool: and in the winter months, sweeping them out once a week will be sufficient; and make a memorandum also of all the requisites you stand in need of. A large

cock for the mash-tub will be found preferable to a spigot and faucet, which often flies out, and occasions great waste.

PORTER.

Put one peck of ground amber malt into a small tub, having a small hole bored at the bottom for the liquor to run through, placing a wisp of clean hay or straw before the hole, to prevent the malt running off with the liquor. Three gallons and a half of water brought to boil, dash the boiling water in the copper with cold water, sufficient to stop the boiling, and leave it just hot enough to bite smartly upon your finger ; and immediately begin putting it to the malt, till it becomes thoroughly wet, washing it well, to prevent your malt clotting : then spread a sack or coarse cloth over the mash-tub, to prevent any evaporation of the steam. Let your wort stand

after mashing an hour and a half, or two hours. Let the wort run into a vessel placed properly to receive it: if at first it runs thick and discoloured, pour it back again into the mash-tub, to refine again till it runs clear; having in the mean while boiled three gallons of water for the second mash. Let it stand an hour and a half, then run it off;—but never let your malt stand dry: keep lading fresh liquor over it till the quantity of wort you wish to get is extracted, always allowing for waste in the boiling, and running off the wort. If the weather be very hot, a few hops should be put in the vessel to receive the wort, to prevent its turning sour; but this is only a necessary precaution during the summer heats. The next consideration is boiling of the wort. A quarter of a pound of hops is to be boiled with the wort*, which must continue an hour. The hops, &c. being

* Many people who brew porter for their own private use, would add to the wort half a pound of treacle, a quarter of a pound of liquorice-root, a quarter of a pound

carefully strained from the first wort, must be boiled in the second an hour, strained, and set thinly, the more expeditiously to cool: must be worked, when luke-warm, with about a gill of good yeast in the usual manner, till it bears a deep head. Porter should always be brought forward more expeditiously than any other malt liquor, except what is called amber or twopenny.

Cleanse the second day after brewing; and put into your wort about two teaspoonfuls of flour, and one of common salt, which will assist the working: rouse it thoroughly at the same time. The porter being now ready for fining, carefully fill the cask prepared for that purpose, which is of course to be left unbunged for the yeast to flow over, and prevent bursting the cask. Take care to keep the casks constantly filled when upon the stillions; and when it nearly ceases to work, top it up with

of Spanish liquorice, and a quarter of a pound of colouring to the above quantity, which would certainly give it a fine colour, and are very innocent ingredients.

bright beer, and not what has come over with the yeast. When the working has ceased, and the cask is thus filled, it may be closely bunged: care, however, must be taken, particularly in sudden changes from cold to very hot weather, that a new fermentation be not suddenly excited; it must be instantly stopped by drawing the peg.

TO BREW FIVE BARRELS OF PORTER.

A quarter of malt, with all the ingredients, will produce five barrels of good porter when brewed according to these directions. Take one quarter of high-coloured malt, eight pounds of hops, (* nine pounds of treacle, eight pounds of colour†, eight pounds of sliced liquorice-root, two drams of salt of

* These ingredients may be added, or not, as the party may think fit; I merely give the proportion that many people use, and I think it improves the appearance of the beer.

† COLOUR, composed of eight pounds of moist sugar, boiled till it obtains a middle state between bitter and

tartar, two ounces of Spanish liquorice, and half an ounce of capsicum). The malt must be mashed, and the hops boiled the same as before ; and when boiled, the other ingredients must be added. Boil the first wort one hour, the second one hour and a half, the third two hours ; so that you fully extract the virtue from the hops. Be likewise very careful not to put your wort together when too warm.

The only part which now remains to complete your brewing, is fining your beer. Some, however, will perhaps follow the exact receipt ; and therefore I mention, that finings are composed of isinglass dissolved in stale beer, till the whole comes to a thin gluey consistence like size, and which must be used discretionally ; one pint is the usual proportion to a barrel, but sometimes two, and even three, are found necessary. Particular care must be taken that the stale beer in which the isinglass is dissolved be

sweet, and which gives to porter that fine mellow colour usually so much admired.

perfectly clear and thoroughly stale. When you put in the finings, stir it well up with your staff, and let the bung remain out for nine or ten hours. Your butt must not be too full, for if there be not room for the porter to work, it will not readily go down.

AMBER,
COMMONLY CALLED TWOPENNY.

Take one bushel and a half of pale or amber malt thoroughly ground, one pound of hops, (one pound and a half of sliced liquorice root, a quarter of an ounce of capsicum, five pounds of treacle* :) this will brew thirty-two gallons.

N. B. The mode of brewing it, &c. is similar to that described for porter, like which it works remarkably quick, and even requires still more attention after being barrelled. It may be drunk within a fort-

* See Notes, pp. 27 and 29.

32 GATHERING APPLES FOR CIDER.

night from the time of brewing. You will observe, the quantity of capsicum in one barrel of amber is as much as is commonly contained in two barrels of porter; this readily accounts for the preference given to it in cold winter mornings as a warmer to the stomach.

GATHERING APPLES FOR CIDER.

In gathering apples for prime cider, care should be taken that they be thoroughly ripe before they are taken from the tree; otherwise the cider will be of a rough, harsh taste: they should be hand-gathered, and every sort kept separate one from another. It is observed by Mr. Crocker, in his tract on "The Art of making Cider," that the most certain indications of the ripeness of the apples, is the fragrance of their smell, and their spontaneously dropping from the trees. When they are in this state of maturity, in a dry day,

the limbs may, he says, be slightly shaken and partly disburdened of their golden store; thus taking such apples only as are ripe, and leaving the unripe longer on the trees that they may also acquire a due degree of maturity. It may not, he thinks, be amiss to make two or three gatherings of the crop, keeping each by itself—the latter gathering, as well as wind-falls, can however only be employed in making inferior cider: the prime cider must be drawn from the former gatherings.

And Mr. Knight remarks, that the merit of cider will always depend much on the proper mixture, or rather on the proper separation of the fruits. Those whose rinds and pulp are tinged with green, or red without any mixture of yellow, as that colour will disappear in the first stages of fermentation, should be carefully kept apart from such as are yellow, or yellow intermixed with red. The latter kinds, which should remain on the trees till ripe enough

34 GATHERING APPLES FOR CIDER.

to fall without being much shaken, are alone capable of making fine cider. Each kind should be collected separately, as noticed above, and kept till it becomes perfectly mellow. Each heap should be examined prior to its being ground, and any decayed or green fruit carefully taken away. The expense of this will, he observes, be very small, and will be amply repaid by the excellence of the liquor, and the ease with which too great a degree of fermentation may be prevented.

It is necessary the day before you make cider to put every utensil in order: the mill, press, tubs, casks, pails and bowls, should be clean washed, and suffered to dry before they are employed.

PRIME CIDER.

In the common cider-mill of Herefordshire, the fruit is reduced by a large circular stone, similar to those used for grinding

corn, which is supported on its edge, and drawn round a circular stone trough by a horse. It is observed by Mr. Knight, in his "Treatise on the Culture of the Apple and Pear," that in grinding, the fruit should be reduced, as nearly as possible, to an uniform mass, in which the rind and kernels are scarcely discernible. He says, after the fruit has been thoroughly ground, the reduced pulp should remain twenty-four hours before it be taken to the press ; or where very fine cider is expected, I would recommend that the fruit be first ground and pressed imperfectly, and that the pulp be then exposed during twenty-four hours to the air, being spread as thin as convenient, and once or twice turned over to produce as large an absorption of the air as can be obtained. I would then recommend the pulp to be ground again, and the expressed liquor to be added to it ; by which process the liquor will be found to acquire an increased degree of strength and richness.

He observes, if the fruit have been tho-

roughly ripe and mellow, a large quantity of the pulp will now pass through the hair-cloth which is used in pressing; and as this will be thrown off in the first stages of fermentation, each cask in which the liquor is placed to ferment, should want about a gallon of being full. Some advantages are found in the case of open vessels; but these can only be used under cover, and are therefore proper only where the quantity of liquor to be manufactured is small.

The progress of fermentation, if the weather be cool and settled, will generally become entirely suspended in a few days; and the liquor will then separate from its impurities. Whatever is specifically lighter will rise to its surface, whilst the heavier lees will descend to the bottom, leaving the intermediate liquid perfectly clear and bright. This must instantly be drawn off, and not suffered, on any account, again to mingle with its lees; for these possess much the same properties as yeast, and

would inevitably bring on a second fermentation. The best criterion to judge of the proper moment to rack off will be the brightness of the liquor. The clear liquor being drawn off into another cask, the lees are put into small bags, similar to those used for jellies; through which whatever liquor the lees contain gradually filtrates, and becomes perfectly bright. It is then returned to that in the cask, in which it has the effect, in some measure, of preventing a second fermentation. But if a disposition to ferment with violence again appear, it will be necessary to rack off from one cask to another as often as a hissing noise is heard. The casks into which the liquor is put whenever racked off, must always have been thoroughly scalded, and dried again; and each should want several gallons of being full, to expose a large surface to the air, as long as the liquor shows any considerable tendency to ferment. If the cider, after being racked

off, remain bright and quiet, nothing more is to be done to it.

The casks are now to be filled entirely, and stopped as soon as all danger of farther fermentation is over; which is supposed to be whenever a blue film begins to collect on the surface of the liquor. It will, however, be proper to put the bungs in somewhat earlier, to exclude the external air, and to prevent the rapid escape of fixed air, when a moderate quantity only is discharged; for it is by the union of this substance with a certain portion of water that ardent spirit is generated: but the bungs should not be driven in firmly, lest fermentation should recommence, and endanger the casks. Ciders which have been made from good fruit, and have been properly manufactured, will retain a considerable portion of sweetness in the cask, to the end of two or three years. Cider is generally in the best state to be put into the bottles at two years old; where it will soon

become brisk and sparkling; and if it possess much richness, it will remain with scarcely any sensible change during ten or twenty years, or as the cork duly performs its office.

Good corks are highly necessary, and if soaked before used in scalding water, they will be the more pliant and serviceable; and laying the bottles so that the liquor may always keep the cork wet and swelled, will much preserve it.

DRAUGHT CIDER.

In making cider for the common use of the farm-house, few of the foregoing rules are or ought to be attended to. The flavour of the liquor is here a secondary consideration with the farmer, whose first object must be to obtain a large quantity at a small expense. The common practice of the country is sufficiently calculated to answer this

purpose. The apples are usually ground as soon as they become moderately ripe, and the juice is either racked off at once, as soon as it becomes bright, or more frequently conveyed from the press directly to the cellar. A violent fermentation soon commences, and continues till nearly the whole of the saccharine part is decomposed. The casks are filled up and stopped early in the succeeding spring, and no farther attention is either paid or required. The liquor thus prepared, may be kept from one to four years in the cask, according to its strength. It is generally harsh and rough*, but rarely acetous; and in this state, I believe, it is usually supposed to be preferred by the farmers and peasantry.

* When it has become extremely thin and harsh, by excess of fermentation, an addition of a small quantity of bruised wheat, or slices of toasted bread, or any other farinaceous substance, will much diminish its disposition to become sour.

INFERIOR CIDER.

An inferior kind of cider is made by macerating the reduced pulp, from which the cider has been pressed, in a small quantity of water, and regrinding it. The residue of three hogsheads of the latter yields about one of the former, which may be kept till the next autumn, and usually supplies the place of cider in the farmhouse for all purposes except for the labourers in the harvest. It is generally fit to be drunk very soon after it is made; and though no attention is ever paid to it during fermentation, it often remains till the end of the succeeding summer more palatable than the cider pressed from the same fruit.

PERRY.

In the manufacture of perry, the pears are ground and pressed precisely as apples

are for cider : it is not, however, usual to suffer the reduced pulp to remain any time impressed. It has been a custom in Herefordshire, and the adjoining counties, to mingle the juices of different varieties of the pear, with a view to correct the defects of one kind by the opposite qualities of another : yet it is certainly more easy to find the required portion of sugar, and of astringency and flavour, in three or four varieties than in one ; and hence a judicious mixture of fruits affords a prospect of considerable advantages. In grinding, the pulp and rind of the pear, like those of the apple, should be perfectly reduced ; and though no advantages are said to have been derived from the reduced pulp remaining some hours impressed, I have no doubt but that, where all other circumstances are the same, that portion of liquor will generally be found the best which has remained longest under the mill-stone. The juice of the pear, and of

the apple, consists of the same component parts, but in different proportions. In the juice of the pear the tanning principle abounds, with a less proportion of sugar, and of mucilage and tinging matter. The management of perry during its fermentation is similar to that of cider, but it does not afford the same criterions by which the proper moment to rack off may be known. The thick scum which collects on the surface of the cider, rarely appears on the juice of the pear; and during the suspension of its fermentation, the excessive brightness of the former liquor is seldom seen in this; but if the fruit have been regularly ripe, its produce will generally become moderately clear and quiet in a few days after it is made; and it must be then drawn off from its grosser lees. An excess of fermentation is prevented by the means used in the manufacture of cider, and the liquor is rendered bright by isinglass. The power this substance pos-

sesses of fining liquors, has been supposed to be purely mechanical ; it is composed of innumerable fibres, which being dispersed over the liquor, attach themselves to, and carry down, its impurities. For this purpose it should be reduced to small fragments by being pounded in a mortar, and afterwards steeped twelve or fourteen hours in a liquor sufficient to produce its greatest degree of expansion. In this state it must be mixed with a few gallons of the liquor, and stirred till it is diffused and suspended in it ; and it is then to be poured into the cask, and incorporated with the whole by continued agitation for two hours. This process must be repeated till the required degree of brightness is obtained, the liquor being each time drawn off on the second or third day, from its precipitated lees. Not more than an ounce and half, or two ounces of isinglass, are, I believe, generally put into a cask of a hundred and ten gallons, at once. Were the operation of isinglass,

however, purely mechanical, there would be no objection to the use of a larger quantity ; but it has also a chemical action on the liquor ; it combines with, and carries down the tanning principle, and hence, during the process of fining, the liquor loses a large portion of its astringency. Isinglass is most readily infused in liquors by being boiled ; but by this it is dissolved, and its organization, on which its powers of fining in some measure depend, is totally destroyed. The application of it is sometimes necessary in the manufacture of cider, but it is rarely wanted for that liquor. I deferred inserting the directions for using it till I came to speak of perry, which is seldom made thoroughly bright, or fit for the bottles, without it. When cider or perry can be made bright without the aid of isinglass, I would by no means recommend the use of it. The excessive brightness which it produces is extremely agreeable to the eye ; but the liquor has always appeared to

me to become more thin and acid by its operation.

The after-management of perry is the same as that of cider; but it does not so well bear situations where it is exposed to much change of temperature, and its future merit cannot so well be judged of by its present state. In the bottle it almost always retains its good qualities; and in that situation I would recommend it to be put, if it remain sound and perfect at the conclusion of the first succeeding summer.

MEAD.

Mead is a very pleasant liquor, if due care be taken to prepare it properly. The usual practice of making it strong, by putting so great a portion of honey to be dissolved in the water as to bear an egg, is not correct. The liquor is thereby ren-

dered a mere scum, and this bad quality is still increased by the long boiling generally practised. It is scarcely possible to procure honey so pure but that some extraneous substance may be mixed with it ; and this cannot be perfectly separated from it, except by boiling. On this account the boiling of mead seems indisputably necessary. In order the more effectually to separate these impurities from the liquor, some whites of eggs may be mixed with it before it is put on the fire : it will be particularly necessary to skim off the thick scum that rises, the moment the liquor begins to boil ; and this must be attentively continued so long as it boils. The only intention of boiling being to separate the impurities, and to make a perfect union with the water and the honey, both which purposes are very soon obtained, it evidently appears, that the boiling need be but of very short duration. This becomes more particularly necessary, because the liquor will be the less disposed

to ferment kindly, the longer the boiling has been continued.

It is perhaps owing to the single article of long boiling that mead has hitherto laid under so great discredit; because it then never fermented sufficiently to take off its luscious sweetness; whereas, had it undergone a due fermentation, that sweetness would have gone off, and the mead would have attained a fine racy flavour. It is the practice of some to add hops to the mead. This helps to take off its sweetness, and, as the bitterness of the hops goes off, gives it a pleasant flavour. A ferment is in this case generally wanted in all liquors that are boiled, to bring on a perfect fermentation: but as the least taint in the ferment is communicated to the whole liquor, particular care should be taken that it be very sweet and good.

Mead, when judiciously managed on these principles, will keep for years, and be improved by age. The racking, fining,

&c. of this liquor, are the same as those of others of the white wine kinds.

There are different kinds of mead ; but those generally made are two, namely, suck mead, and cowslip mead. Suck mead is made thus : To every gallon of water put four pounds of honey ; boil it half an hour, taking care properly to skim it. To every gallon add an ounce of hops ; then boil it half an hour longer. When this is done, take it off, and put it into a clean tub, and let it stand till the next day ; then put it into your cask, and to thirteen gallons of the liquor add a quart of brandy. Let it be lightly stopped till the fermentation is over, and then stop it very close. If you make as much as fills a large cask, you must not bottle it off till it has stood a year.

To make cowslip mead, you must proceed thus : Put thirty pounds of honey into fifteen gallons of water, and boil it an hour ; skim it well, then take it off the fire, and

have ready a dozen and a half of lemons. quartered : pour a gallon of the liquor boiling hot upon them ; put the remainder of the liquor into a tub with seven pecks of cowslip pips ; let them remain there all night, and then put to the liquor and the lemons eight spoonfuls of new yeast, and a handful of sweet-briar ; stir all well together, and let it work for three or four days. Then strain it, and put it into the cask ; let it stand six months, and then bottle it off for keeping.

· Mead is manufactured in this manner where it is made in a large quantity. To sixty gallons of pure water, the softer the better, put seven gallons of purified honey. When the honey is well mixed with the water, fill your copper the same you use for brewing. Boil it an hour, taking care to skim it ; then take it off by means of a jet, and put it into a tub ; and let it remain till it is only as warm as new milk ; then tun it up, and suffer it to ferment in

the vessels, where it will form a thick head
As soon as it has done working, stop it
very close, in order to keep the air from it
as much as possible. Keep it in a cellar,
or in a wine-vault, very deep and cool, and
the door shut so close, as to keep out, in a
manner, all the outward air ; so that the
liquor is always in the same temperature,
being not at all affected by the change of
weather. Another proportion of making
mead is, to allow forty pounds of purified
honey to sixty gallons of soft water, which
is managed, in the making, in all respects
like the above-mentioned ; and it proves
very pleasant, good, light drinking, and is
by many preferred to the other, which is
much richer, and has a fuller flavour ; but at
the same time it is more inebriating, and
apt to make the head ache if drunk in too
large quantities. The last, therefore, is
thought, upon the whole, to be the propor-
tion that makes the wholesomest liquor for
common drink ; the other being rather,

52 NECESSARIES FOR THE CELLAR.

when properly preserved, a richer cordial, something like old Malaga, which, when in perfection, is justly esteemed the best of the Spanish wines. It should never be bottled till it is half a year old; and take care to have it well corked, and keep it in the same vault or cellar wherein it stood whilst in the cask.

NECESSARIES AND CAUTIONS FOR THE CELLAR.

Shot, and lead canister, and two cloths to wash bottles; and beware of any bottles that may have been used for oil.

Six strain-cocks, bungs, corks, vent-pegs and a mallet.

A pair of pliers, and cork drawer.

A leather boot to buckle on the knee, in which to hold the bottles when corking them.

NECESSARIES FOR THE CELLAR. 53

A strong box, or other hard wood, cork-driver.

Coarse linen, to put under the bungs.

Six broad tin spouts, for the beer to work through.

A strong iron skewer, with which to raise up the bungs.

A middle-sized gimlet.

A quire of stout brown paper, to put round cocks.

Two long sponges, with which to clean out the insides of the casks, &c.

Two split broom-sticks, for cellar candlesticks.

Six iron-bound tap tubs.

A wine bitt, with which to bore the casks.

Two long wine-cocks.

Two tin funnels, to put in spare bottles when bottling off.

Two low stools to sit on.

A leather apron, with a pocket before, and bib to button up on the waistcoat.

A common corkscrew.

54 NECESSARIES FOR THE CELLAR.

An iron-bound can for fining wines.

A hoe, a spade, and six good stiff birch-brooms ; and above all, good and sufficient locks and keys upon all the cellar-doors.

The use of the iron skewer is to raise up the bungs by degrees, first giving it vent with the skewer ; for drawing it up with the hands is very dangerous. Have a strong flat basket made to hold all the tools. Observe never to bottle wine, beer, or cider, but on a fine clear day ; and let the bottles be well inspected ; and always use the best white corks.

P A R T II.

CONTAINING

INSTRUCTIONS FOR THE MAKING
OF BRITISH WINES.

BRITISH WINES.

THE very great encouragement which has of late been given to the manufacturers of these wines, has induced them, at least the principal part of them, (more particularly myself,) to pay such strict attention to their manufacture, that it may be said they are brought to their highest state of perfection; and where they have been properly managed, they will be found to possess every quality and virtue of the foreign wines. Indeed, the fine grapes which this country has produced for these last three seasons have enabled the manufacturers to make some of their wines little inferior, if at all so, to the finest Sherries: and I am certain a strict adherence to my in-

structions will induce many, however prejudiced they may be against English wines, to give encouragement to the growth and labour of our own country : more especially at the present time, when the high price of foreign wines has been almost a preventative of many families enjoying those luxuries which they have been accustomed to, and which I am convinced they still might enjoy at half the expense — and I should think with much greater pleasure to themselves, being of their own manufacture. I shall first treat of the wines which are made in imitation of foreign wines ; and by a strict and attentive management according to the directions given, they may be brought to such a state of perfection, that they shall not be known from the wines they are made to imitate.

TO MAKE 18 GALLONS OF GRAPE WINE.

Take ripe grapes of the sweetwater kind 60 lbs.; put them into a press, and to every gallon of the expressed juice add two gallons and a half of soft water, and 40 lbs. of East India sugar. Let the sugar be well dissolved in the tub, and let it stand twenty-four hours exposed to the air; then draw it off into your cask till such time as the fermentation has ceased, leaving the bung out the whole time. After the fermentation has subsided, rack it off into another cask, putting what sediment may remain in the cask, into a filtering bag; and when it is run through, put it into the wine, with one gallon of French brandy; stir it well, then stop the bung close; and in six months after it will be found to be a very fine wine.

ANOTHER WAY.

Take two bushels and a half of ripe grapes; put them into a tub, to which add eight gallons of soft water; let them stand for three days, then put them into your press, and the expressed juice to your water, with twenty pounds of strong raw sugar; then draw it off into your cask. Let it ferment for about ten days; then add two gallons of French brandy, and half a pound of mustard-seed. Let it be bunged down close for six or eight months: it then will be in a fit state to tap.

SHERRY WINE.

Take the cuttings of the vine, when they are undergoing their second pruning; put them into a tub, which must previ-

ously have a cock-hole made in the bottom. Boil as much water as will cover them, which must be put on them in a boiling state. Cover the tub over, and let it stand twenty-four hours; then draw the extract from the tub by the cock. Put it into the copper, and when it boils put it a second time upon the cuttings, and let it stand till it is cold; and to every gallon of the liquid put three pounds of good loaf sugar. Put it into your cask, and when the fermentation has subsided, which perhaps may continue near three months, add to every eighteen gallons of wine made, a gallon of spirits of wine; and about the month of September, it will be in a fit state to drink.

Note.—This wine in particular, the author affirms, will be found to equal the *best Sherry*, provided it is suffered to remain two years, and the directions carefully attended to. Care must be taken during the fermentation, the first fourteen

days, to leave the bung-hole of the cask about half covered, and at the end of that time to stop it down close.

ANOTHER WAY TO MAKE 18 GALLONS OF SHERRY WINE.

Take of the brown cluster grape two bushels; press them *once* only, and then add nine gallons of soft water, and fifty-six pounds of raw sugar, and of bitter almonds well bruised one pound. Put them into the cask, and let it stand with the bung-hole uncovered, till the fermentation, at least the violent fermentation, has subsided; then stop the bung-hole close, and at the end of three months, put into a bag half a pound of mustard-seed, which must be suspended from the bung about the middle of the cask, and at the same time add two quarts of French brandy: it should stand twelve months before it is tapped, from the first pulling of the fruit.

MADEIRA WINE, 18 GALLONS.

Take twelve gallons of water, to which add forty pounds of good raw sugar : boil it half an hour, taking care that it is well scummed. When quite cold, put to it four gallons of good ale-wort out of the tun ; then put it into the cask, with one pound of brown sugarcandy and 12 pounds of raisins, one quart of brandy, and one ounce of picked isinglass. When it has done working, stop it close, and let it stand one year before you bottle it. The best time to make it is in October.

Note.—The small quantity of spirit which is added to the wine, will not have any injurious effect upon the fermentation.

ANOTHER WAY.

Take 70 lbs. of good Malaga raisins ; put them into a tub, and add 14 gallons of

spring water. Let them remain for about three weeks ; then put them into a press, and add to it four gallons of fine ale-wort. Put it into your cask : let the bung remain out for about a week ; then stop it close, and it will be fit to tap in eight months.

CHAMPAIGN WINE.

Press the claret grape of this country in a press, where the juice cannot come in contact with any of the iron part of it, as it will give it a very unpleasant flavour. Let the juice be put into a cask together with the pulp, and exposed to the rays of the sun for twenty-four hours : after which put them into the press a second time. Strain the juice well ; and put it into a stout well-seasoned cask, and stop it close for forty-eight hours ; then give it vent near the bung-hole, and let it remain with the vent-peg out for six days ; after which

to every 18 gallons put one gallon of white French brandy. Stop it up close again, and in four months it will be fit to bottle.

Note.—The grapes should be perfectly ripe, and the corks of the bottles should be wired. I have for this same wine got three guineas and a half per dozen ; and it is superior to some of the champaign imported.

FRONTINIAN WINE.

To every gallon of water add five pounds of sun raisins ; let them steep in the tub for about three weeks ; then put them into a press, and press them well. Put it into your cask, and let it ferment : in the mean time get two handfuls of clary flowers, and the same quantity of elder flowers ; steep them in a gallon of British spirit for about a month ; then add the same to the wine, bung it down close, and let it stand for six

months : then rack it off to the lees into another seasoned cask, and in a month's time it may be tapped.

RAISIN WINE

May be made in the same manner as the foregoing receipt, leaving out the clary and elder flowers, and of any sort of raisins, of the proportion of five pounds to the gallon of water ; and after the fermentation has subsided, it should be racked off into another seasoned cask, and to every twenty gallons of wine a gallon of spirits of wine should be added.

ANOTHER WAY.

To one gallon of water put six pounds of sun raisins ; let it stand in the tub fourteen days ; stir it frequently, press the raisins as

dry as possible, and put the wine into the cask, and to every ten gallons put one quart of brandy. If you wish to make it very rich, you may put seven pounds of raisins to a gallon of water, and dissolve five pounds of brown sugarcandy in the water before you put it into the cask. When made in this manner, it must stand longer; and is scarcely inferior to the foreign Malaga wine.

ORANGE WINE, 18 GALLONS.

Take half a chest of Seville oranges, squeeze the juice from them, and dissolve in it forty-six pounds of good lump sugar; then take half the quantity of the peel, put it into another tub, and pour upon it ten gallons of boiling water; let it stand till it is cold, then squeeze the peel as dry as you can, and put the liquor to the sugar and juice into your cask. When the fermen-

tation has subsided, add to it two quarts of good French brandy; let it stand six months, and then bottle it.

ANOTHER WAY.

To every gallon of water put two pounds of good raw sugar and one pound of Malaga raisins; let them be put into a tub to steep for fourteen days; then press the fruit, and to every gallon of the expressed juice, add the juice and peel of a Seville orange; put it into your cask, and let it remain for six months. If you were to add to it three quarters of a pound of Rhenish tartar in powder, it would greatly improve it.

ANOTHER WAY.

Take the peel of a chest of Seville oranges; put them into a cask, then add to it

four gallons of British brandy, and five gallons of white candy syrup (which may be got at any wholesale confectioner's): put them into the cask with the peel; then overdraw the juice twice a week for about a month; then to every gallon of raisin wine put one pint of this flavour. Stir it well, and fine it with a little isinglass; and in the course of three days it will be in a fit state to drink.

N. B.—If the wine should not be sweet enough, you may add syrup to your taste at the time you are fining it; it will not cause any farther fermentation, and will be ready to drink equally as soon.

LEMON WINE.

Pare four dozen of lemons, put the peels into one gallon of brandy, and let them stand fourteen days; make the juice of the

lemons into a syrup with two pounds of lump sugar. When the peels have steeped there a sufficient length of time, boil ten gallons of water with forty pounds of good lump sugar half an hour ; put it into a tub, and when cold, add the brandy, peel, and syrup, and put it into the cask : stop it close, and let it stand six months.

ANOTHER WAY, 18 GALLONS.

To fifteen gallons of water add thirty pounds of good honey, and fifteen pounds of Malaga raisins ; steep them for fourteen days ; then draw them off, and add to it the juice and rind of forty lemons, and two quarts of brandy. Put it into the cask, and let it stand till it is fine.

GOOSEBERRY WINE.

Take a bushel of white gooseberries (of the champaign kind, if you can get them) when they are about two thirds ripe, and put them into a tub with nine gallons of water ; let them stand twenty-four hours ; then put them in a press, and when pressed add fifty-six pounds of good lump sugar ; put it into your cask, bung it up, and let it stand twelve months : you may then bottle it, and you should be careful to wire the corks, as this wine is apt at times to fly the corks.

ANOTHER WAY.

To every three pounds of gooseberries put a pint of spring water, the gooseberries having been previously bruised ; stir them well, and let them stand twenty-four hours,

and to every three pounds of gooseberries and pint of water add a pound of lump sugar; then stir it till the sugar is dissolved, and let it remain twenty-four hours more; then scum the top off, put the liquor into a cask, and let it work two or three days: then let it be bunged up close, and let it remain full four months before you bottle it: and be careful not to tap the cask too low down: these bottles should likewise be wired.

ANOTHER WAY.

To twelve gallons of soft water put eight gallons of white gooseberries; let them be well bruised, and steep them for forty-eight hours; then press them, and add to the juice twenty-five pounds of raw sugar; put it into the cask, and let it work for three days: then add to it half a gallon of brandy, and one pint of fine mustard-seed; and let it stand for six months.

GINGER WINE, 18 GALLONS.

To fifteen gallons of water put fifty-six pounds of good raw sugar ; boil it well for half an hour, taking off the scum as it rises. Bruise one pound of the best Jamaica ginger, pare and cut three dozen lemons ; and when the syrup has boiled sufficiently, pour it upon the lemons and ginger, and let them remain in it till the syrup is about luke-warm ; then squeeze them out, and put into the tub a little yeast. Let it work three days ; then put it into your cask with a little isinglass, and let it stand three months : it will then be fit for use.

N. B. Put half the ginger and lemons into the cask.

ANOTHER WAY.

Take fifty-six pounds of Malaga raisins, to which add twenty gallons of soft water ; let them steep for fourteen days ; then press them off, and put it into your cask ; to which add one pound of ginger well bruised, with the peel and juice of eighteen lemons, and one gallon of clarified syrup ; and let it remain for four months, and it will be found to be a very fine wine.

WHITE CURRANT WINE.

To every gallon of juice add two gallons of water, and to every gallon of juice, when mixed, three pounds of the best lump sugar ; let the sugar be well dissolved in the juice ; then put it into the cask, and leave the bung over the bung-hole, so as to admit a little of the air ; and when it has been

working for about fourteen days, put into it, in a bag suspended from the bung about half way in the cask, one pint of mustard-seed previously steeped in a quart of brandy; and in twelve months it may be tapped.

Note.—These wines are too generally tapped in three or four months after they are made; but, if it is convenient to let them remain a season before they are touched, there will be no comparison as to the quality; and I will venture to assert the above wine will be little inferior to Lisbon wine.

ANOTHER WAY.

To ten gallons of water put the same quantity of white currants; let them remain in steep for forty-eight hours; then press them, and add to the juice thirty pounds of good lump sugar: put it into the cask, and when it has worked for four-

teen days add two ounces of bitter almonds well bruised, and one gallon of brandy ; let it stand for six months, and you may then tap it.

RED CURRANT WINE

May be made in the same manner as the white, as far as regards the proportion of fruit and sugar ; but a few raspberries will be a very great improvement to the red currants : about a gallon of the juice to eighteen gallons of the wine will do. It is worked in the same manner, but there is no necessity for either spirit or mustard-seed to be added ; indeed the latter would not answer in red currant wine.

OR,

To ten gallons of white and red currants add nine gallons of water ; let them steep for twenty-four hours ; then add fourteen

pounds of raw sugar, and fourteen pounds of good honey, and about two pounds of sliced beet-root. Let it work as usual, and then add one gallon of brandy : let it stand twelve months before you bottle it.

BLACK CURRANT WINE,

18 GALLONS.

To seven gallons of the juice of the currant put the same quantity of water, and add to it fifty-six pounds of good raw sugar ; put it into your cask, keeping back a little of the wine to fill up the cask with as it works over. When fermentation has subsided, put to it one gallon of brandy ; then bung it close down, and let it remain for twelve months.

ANOTHER WAY.

Take one bushel of black currants, and a peck of strawberries, to which add ten gallons of water; let it remain twenty-four hours in steep; then draw it off, and add to the juice twenty-eight pounds of raw sugar; and when the sugar is well dissolved, put it into your cask, to which add three ounces of bruised Jamaica ginger, and in a fortnight's time put into it three quarts of brandy; bung it down tight, and let it remain for six months.

RASPBERRY WINE.

To every gallon of raspberries put a gallon of water, and let them steep for forty-eight hours; then press the fruit, and to every gallon of juice put three pounds of

good raw sugar ; put it into your cask, and add to every eighteen gallons of wine one gallon of brandy. It will be ready to tap in three months.

OR,

If you add the same quantity of cider to it instead of water, and proceed according to the foregoing receipt, it will be found to make a most delicious and rich wine ; if kept for twelve months before it is bottled, it will be a wine that may be introduced as foreign, as the flavour of the raspberry will in a great measure be gone, and a more grateful one substituted.

STRAWBERRY WINE.

To one bushel of pine strawberries, when pressed, add ten gallons of water, and a quarter of a hundred weight of good raw sugar. When dissolved, put it into your

cask with the rind and juice of twelve lemons ; let it work well, and then add one gallon of brandy. It will be fit to tap in three months.

ANOTHER WAY.

To one bushel of strawberries, when pressed, put six gallons of good Herefordshire cider, and the same quantity of soft water, to which add sixteen pounds of good raw sugar, with the juice and rind of three lemons, and a quarter of a pound of well-bruised ginger. When it has done working, add two quarts of brandy, and bung it down close, and let it remain till bright.

MULBERRY WINE.

Gather your mulberries when they are ripe, and to every gallon of berries put a

gallon of spring water, and let them steep twenty-four hours ; then strain them well, and to every gallon of the juice put three pounds of lump sugar. When it is dissolved, put it into your cask, and do not bung it down till it has done working. Then bung it down close, and when fine, bottle it, and let it remain twelve months in bottle before used.

Note.—This wine should not be drunk under three years old, it being rather a flat wine ; but when it has been bottled two years, the flatness will go off.

BLACKBERRY WINE.

Take the berries when they are ripe, and to every gallon of berries put the same quantity of water. Let the berries be well bruised, and steeped about twelve hours : and to every gallon of juice add two pounds and a half of raw sugar, and

the juice and rind of twelve lemons to eighteen gallons of the wine. Put it into your cask, and the next day bung it down close ; and in two months it will be fit to bottle.

ELDER WINE.

Gather your berries when full ripe ; put them into your copper when picked, and boil them till the berries begin to sink ; then draw it off from the copper, and strain the berries through a sieve, and to every gallon of juice put three gallons of water, and to each gallon when mixed add three pounds and a half of raw sugar. Put the juice into your copper again, and let it boil for an hour, skimming it well all the time ; then draw it off into a tub ; and when it is about luke-warm, get some yeast, put it upon a toast, and put it into the tub

to your wine. Let it work in the tub two nights; then draw it off into your cask, and add to it for eighteen gallons one ounce of cloves, two ounces of ginger, and two ounces of allspice well powdered. Put the bung in slightly, till it has done hissing; then stop it close, and in three months it may be fit to tap.

ANOTHER WAY. .

Take half a hundred weight of Malaga raisins, to which add sixteen gallons of water; let it steep ten days, then draw it off, and put it into your copper with four gallons of elder juice, fourteen pounds of raw sugar, a quarter of a pound of Jamaica ginger well powdered, one ounce of cloves, and one ounce of allspice, all well powdered; and let it boil well for an hour; then draw it off, and put toast and yeast to it as before. After two days

draw it off into your cask; and when it has done working, bung it down; it will be fit to tap by Christmas.

ANOTHER WAY.

Take four gallons of elder juice, to which add eight gallons of soft water, a quarter of a hundred of good raw sugar, four ounces of powdered ginger, and two ounces of allspice; put them into your copper, and let them boil well for half an hour, keeping it well skimmed; then draw it off into your tub, and work it with toast and yeast for four and twenty hours; then draw it off into your cask, to which add six gallons of good cider, and in four days after bung the wine down.

ANOTHER WAY.

To every gallon of berries, put a gallon of water, and let them stand twenty-four hours, stirring it often; then put it into your copper, and boil it well for half an hour; then draw it off, and strain it through a sieve; then put the juice into the copper a second time, and to every gallon of liquor three pounds and a half of moist sugar; add two ounces of ginger, and one ounce of allspice, to every six gallons; let it boil well together for half an hour; then take it out and put it to cool; when cool, put in a toast covered with good yeast; let it work well. When it has done fermenting, put it into your cask; stop it close; let it stand three or four months, then bottle it off. This wine will be excellent, possessing all that rich and full flavour so much admired by good judges of this wine.

CHERRY WINE.

Take fifty pounds of black cherries, picked from the stalk; let them be well bruised with the hands; take half a bushel of red currants, and one gallon of raspberries, bruised in the same manner. To this quantity of fruit allow forty pounds of sugar; dissolve it in eighteen gallons of soft water, and put it into a vessel with the fruit; then fill the vessel with soft water, only leaving room for the working, and when all is in the vessel, stir it well together with a stick; it must not be bunged up in less than three weeks; it may be bottled in five months.

PLUM WINE.

Take greengages or Orlean plums, and put them into a tub, and put as much boiling water on them as will cover them, and

cover the tub over, and let it stand for seven days; then make a hole at the bottom of the tub, and let the juice run from the pulp; and to every gallon of the juice, put three pounds of lump sugar. When the sugar is dissolved, put it into your cask, and bung it down in a week, putting brandy to it after the rate of a gallon to eighteen gallons of wine.

BIRCH WINE.

The season for procuring the liquor from the birch trees, is at the beginning of March, while the sap is rising, and before the leaves appear. The juice, by being long digested in the bark, grows thick and coloured, which before was thin and clear. The method of procuring the juice is by boring holes in the body of the tree, and putting in faucets, which are commonly made of the branches of elder, the pith being taken out. You may without hurting

the tree, if large, tap it in several places, five or six at a time, and by that means save from a few trees several gallons every day. If you have not enough in one day, the bottle in which it drops must be corked close, and rosined or waxed: however, make use of it as soon as you can. Take the sap and boil it as long as the scum rises, skimming it all the time, and to every gallon of liquor put four pounds of good sugar, and the peel of a lemon; boil it afterwards half an hour, skimming it very well; pour it into a clean tub, and when it is almost cold, set it to work with yeast upon a toast: let it stand five or six days, stirring it often then. Take such a cask as will hold the liquor; fire a large match dipped in brimstone, and throw it into the cask; stop it close till the match is extinguished; tun the wine, lay the bung on light till you find it has done working; stop it close, and keep it three months; then bottle it off.

COWSLIP WINE.

To two gallons of water put seven pounds of loaf sugar, and two lemons sliced ; boil it a quarter of an hour, scum it well ; then put it into an earthen pan ; let it stand till half cold, then put in two gallons of picked cowslips ; mix them well together ; when it is a little warm, put in a piece of toast covered with good yeast ; let it work. When it has stood twenty-four hours, put it altogether into the cask without straining ; let it stand six months, then bottle it off. This, if properly managed, will be excellent.

ANOTHER WAY.

To one gallon of water put four pounds of loaf sugar, boil and scum it as long as any scum rises ; to each gallon of water put

the rind of a lemon or orange, and boil with the sugar and water three gallons of the flowers of cowslips; let them boil three minutes, then put into a tub, and when almost cold, toast a bit of bread and spread it with very thick yeast, put it in the liquor, and let it stand two nights: when you put it into the cask, add all the juice of the orange or lemon which you pared; and if you make ten gallons of wine, you must put two quarts of brandy, and so on in proportion for any quantity you wish to make.

ANOTHER WAY.

To every gallon of water, weigh three pounds of lump sugar, boil the quantity half an hour, taking off the scum as it rises. When cool enough, put to it a crust of toasted bread dipped in thick yeast; let the liquor ferment in the

tub thirty-six hours, then draw it off into the cask, and put to every gallon of the syrup the juice of two and the rind of one lemon, and both of one Seville orange, and one gallon of cowslip pips; then pour on them the liquor. It must be carefully stirred every day for a week; then to every five gallons put in a bottle of brandy. Let the cask be close stopped, and stand only six weeks before you bottle it off: observe to use the best corks.

DAMSON WINE.

Gather the fruit dry, weigh them and bruise them with your hands, put them into an earthen pot with a faucet, having a wad of straw before the faucet, and to every eight pounds of fruit add one gallon of water, then pour it upon your fruit, scalding hot, and let it stand two days: afterwards draw it off, and put it into a clean

cask, and to every gallon of liquor add two pounds and a half of sugar. Let the cask be full, and the longer it stands the better, it will keep very well a year in the cask ; afterwards bottle it off. The small damson is the best. If you put a small lump of loaf sugar into every bottle, it will be much improved.

ANOTHER WAY.

Take two pounds and a half of sugar to every gallon of water ; boil and skim it for two hours, and to a gallon of liquor add five pounds of damsons stewed ; boil them till they are of a good red colour ; then strain the liquor through a sieve, and work it with a little yeast in an open vessel for four days ; after which pour it off from the lees, to clean the vessel, and then put in the liquor to finish the fermentation. Close it up for six or eight months ; and if

it be fine, you may bottle it off. It may be kept a year or two in bottles, and it will be the better for it.

APRICOT WINE.

Take twelve pounds of apricots when nearly ripe, wipe them clean, and cut them in pieces; then put them into two gallons of water, and let them boil till the water has strongly imbibed the flavour of the fruit; then strain the liquor through a hair sieve, and put to every quart of liquor six ounces of sugar; after which boil it again, and skim it; and when the scum has ceased to rise, pour it into an earthen vessel. The next day bottle it, putting a lump of sugar into every bottle.

QUINCE WINE.

Take your quinces when they are fully ripe, and wipe off the fur very clean ; then take out the cores. Bruise the fruit as you do apples for cider, and press out the juice : to every gallon of which add two pounds and a half of loaf sugar, and two gallons of water, stirring it together till the sugar is dissolved : afterwards put it into your cask, and when the fermentation is over, bung it up well. Let it stand till March before you bottle it. This wine will improve by being kept two or three years.

ANOTHER WAY.

Take twenty large quinces (gathered dry), and clean them with a coarse cloth ; then grate them as near to the core as you can, taking care not to grate any

of that in, if you can possibly help it. Boil one gallon of spring water, and put your grated quinces into it; after which let it boil gently a quarter of an hour, and then strain the liquor into an earthen vessel; to every gallon of liquor add two pounds of loaf sugar, stirring it till the sugar is dissolved: then cover it up close, and let it stand twenty-four hours; after which bottle it off, taking care that none of the sediment goes into the bottles. Your quinces must be fully ripe.

BALM WINE.

Take a bushel of balm leaves, put them into a tub, and pour eight gallons of scalding water upon them; let it stand a night, then strain it through a hair sieve, and put to every gallon of liquor two pounds of sugar, stirring it very well till the sugar is dissolved; then put it

on the fire, adding the whites of four eggs well beaten. When the scum begins to rise, take it off; then let it boil half an hour, skimming it all the time; afterwards put it into the tub again, and when milk-warm add a gill of good ale-yeast, stirring it every two hours. Work it thus for two days, then put it into a cask, and bung it up. When fine, bottle it.

SAGE WINE.

Boil six gallons of spring water a quarter of an hour; let it cool till it is milk warm, and put in twenty-five pounds of Malaga raisins, picked and rubbed clean, and cut small, together with half a bushel of red sage cut small, and a gill of yeast; stir them well together, and let them stand covered in a warm place six or seven days, stirring them once a day; after which

strain the liquor into a clean cask, and when it has worked three days, bung it up, and let it stand about a week longer; then put into it one quart of brandy, and when fine bottle it.

ANOTHER WAY.

Take thirty pounds of Malaga raisins, picked clean and cut small, and one bushel of green sage cut small; then boil six gallons of water, letting it stand till it is milk-warm; after which you must pour it into a tub upon your sage and raisins, and let it stand five or six days, stirring it twice a day; then strain out the liquor from the pulp, put it into a cask, and let it stand six months: afterwards draw it clear off into another cask, and when fine bottle it. In two months it will be fit for use, but will improve by keeping a year.

ELDER FLOWER WINE.

To twelve gallons of water put thirty pounds of good sugar ; boil it half an hour, skimming it all the time : let it stand till milk-warm, then put in three spoonfuls of yeast, and after it has worked, add two quarts of the elder flowers picked from the stalks ; stir it every day till the fermentation has ceased, and then strain it through a hair sieve, and put it into a clean cask ; which must be afterwards bunged close up. Let it stand two months, then bottle it.

ANOTHER WAY.

Boil eighteen pounds of white powder-sugar, with six gallons of water, and two whites of eggs well beaten ; then skim it, and put in a quarter of a peck of elder flowers from the tree that bears white

berries : do not keep them on the fire : when near cold, stir it, and put in six spoonfuls of lemon-juice, four or five of yeast, beat well into the liquor ; stir it every day ; put six pounds of the best raisins into the cask, and tun the wine. Stop it close, and bottle it in six months. When well kept, this wine will pass for Frontiniac.

ELDER FLOWER WINE,
VERY MUCH LIKE FRONTINIAC.

Take six gallons of water, twelve pounds of loaf sugar, and six pounds of raisins of the sun, cut small ; boil these together an hour, then take of the flowers of elder, when they are falling and will shake off, the quantity of half a peck, put them into the liquor when it is almost cold. The next day put in twelve spoonfuls of the syrup of lemons with four spoonfuls of ale yeast ; after it has worked two days, put it into a clean

cask, and bung it up. When it has stood two months, bottle it off.

TURNIP WINE.

Pare and slice a quantity of turnips, put them into a cider press, and press out all the juice; to every gallon of juice put three pounds of lump sugar. Have a vessel ready just large enough to hold the juice; put your sugar into a vessel, and half a pint of brandy to every gallon of juice; pour in the juice, and lay something over the bung for a week, to see if it ferments; if it does, you must bung it down till the fermentation is over; then stop it close for three months, and draw it off into another vessel. When it is fine, bottle it off.

AN EXCELLENT FAMILY WINE

May be made of equal parts of red, white, and black currants, ripe cherries, and raspberries, well bruised, and mixed with soft water, in the proportion of four pounds of fruit to one gallon of water. When strained and pressed, three pounds of moist sugar must be added to each gallon of liquid. After standing open three days, during which it is to be stirred frequently, and scummed as it may require, it is to be put into a barrel, and left for a fortnight to work; when a ninth part of brandy is to be added, and the whole bunged down; and in two or three years it will be a rich and very valuable wine.

CLARY WINE.

To five gallons of water put fifteen pounds of lump sugar, and the whites of five eggs well beaten; boil, and scum it all the time it boils, and when quite clear set it by till cold. Then put it into a cask with two gallons of clary-flowers, stripped from the stems just as the blue flowers are beginning to fall; at the same time put in about a quarter of a pint of good yeast; stir it about every day for three or four days, then bung it close. Some put in a pint of flowers that are in blow, two or three weeks after the wine is made, and stir them to increase the flavour. When it has stood in the barrel about four months, it is generally fit for bottling.

ANOTHER.

Take ten gallons of water, twenty-five pounds of sugar, and the whites of twelve eggs well beaten; set it over the fire, and let it boil gently for an hour, skimming it frequently; then put it into a tub, and when almost cold put it into your cask with about half a peck of clary-tops, and a pint of ale yeast, stir it three times a day for three days; and when it has done working, close it up; if fine, you may bottle it in about four months.

ANOTHER.

Boil fifteen gallons of water with forty-five pounds of sugar, skim it, when cool put a little to a quarter of a pint of yeast, and so by degrees add a little more. In an hour pour the small quantity to the

large pour the liquor on the clary flowers, picked in the dry; the quantity for the above is twelve quarts: those who gather them from their own garden may not have sufficient to put in at once, and may add as they can get them, keeping account of each quart. When it ceases to hiss, and the flowers are all in, stop it up for four months. Rack it off, empty the barrel of the dregs, and, adding a gallon of the best brandy, stop it up, and let it stand six or eight weeks, then bottle it.

ANOTHER.

Take twenty-four pounds of Malaga raisins, pick and chop them very small, then put them into a tub, and to each pound allow a quart of water; let them steep twelve days, taking care to keep it well covered; then strain it off and put into a clean cask, with about half

a peck of the tops of clary when in blossom ; afterwards bung it up for six weeks, and then bottle it. In two months it will be fit to drink. As there will be a good deal of sediment, it will be necessary to tap it pretty high.

MARIGOLD WINE.

Gather marigolds when quite dry ; pick the flowers from the stalks, and to a gallon of flowers put a gallon of water, and three pounds and a half of lump sugar ; make as directed for cowslip wine ; when you bottle it put a table spoonful of brandy into each quart. Those who gather the marigolds from their own gardens may not be able to gather a sufficient quantity at once ; but, if gathered a few at a time, measure them as you pick them, and spread them on a coarse cloth ; lay them on a board floor, and dry them in the

106 IMPERFECT FERMENTATION.

shade; turn them about afterwards, that they may all be equally dried. When you have got a sufficient quantity, put them into the barrel, and pour the sugar and water to them.

Having given the different recipes for the manufacture of English wines, it becomes necessary for me to make a few observations on them, in order to remove prejudices propagated by many interested persons against these wines; which arise, perhaps, from a failure of their own speculations, not having a sufficient knowledge of the doctrine of fermentation. The following are a few causes of an imperfect fermentation.

1. A deficiency of heat.
2. When the fruit has been gathered after a rainy season.
3. When the saccharine matter is not sufficiently abundant.

It therefore is impossible that a manufacturer can make wines at all times of the same quality, unless a very particular attention is paid to the seasons; and where it happens that the fruit is deficient of its saccharine matter, which is the case in wet seasons, a greater proportion should be used (at least a sixth part), and a less quantity of water.

The greatest attention should at all times be paid to the utensils for wine-making: this is an important point to the preservation and fine flavour of all wines. Likewise be careful that your fruit is perfectly ripe, as it is a very mistaken idea that as good wines can be extracted from unripe fruit as from ripe fruit, which many people obstinately persist in.

VINOUS FERMENTATION.

The causes which produce vinous fermentation are imperfectly known, and the time of its commencing uncertain, as it entirely depends on the quality and quantity of the fruit used ; but it may be easily known when it has commenced, by plunging the thermometer into the vat ; and if the heat of it should be greater than the heat of the cellar after it has remained about a minute, it has commenced its operation. It will then gently rise and swell with a slight movement ; which will be succeeded by an intestine motion, and the contents will increase in bulk and heat : towards the end of the vinous fermentation, the agitation and effervescence cease. The must, or new wine, in the vat should then be drawn off, and the fruit put in the press ; and, when pressed, put into your casks.

The casks should be filled within an inch of the bung-hole, and in a few days the

SPIRITOUS FERMENTATION

will commence, and it should be encouraged as long as possible, as it is essentially necessary to the clarification and good quality of the wine, and may be said to be the last stage of nature's operation, the other processes resting entirely with the maker. The spiritous fermentation will abate in eight or ten days; and this should be the period of adding any spirit directed to be put into the wines; and the wines bunged well down till wanted to be used.

RACKING OF WINES.

Unless wines are made in a large quantity, the racking of them adds little to their good quality; and I should not advise any wines to be racked under a quantity of 60 gallons, and unless they are obstinate, and will not fine without forcing or fining.

FINING.

Many are the means and materials for fining wines ; and any of the following methods will prove successful. One pound of marsh mallow root washed clean and cut into pieces ; macerate them in two quarts of water twenty-four hours ; then boil the liquor down to a pint and half, strain it, and when cold, mix with it half an ounce of chalk in powder ; then pour it into the cask, and stir it well.

OR,

Boiled rice two table spoonfuls ; the white of a new-laid egg, and half an ounce of roch alum in powder mixed with a quart of the wine ; then pour it into the cask, and give it a good stirring.

OR,

Dissolve two ounces of picked isinglass in about a quart of stum, or sour cider ; and put it into the cask, stirring it well.

I have been favoured with the following Receipt from a friend, who informs me that he and several of his acquaintance brew, with little labour and no risk, good Beer for present use from 3 Bushels of Malt and 1½lb. Hops.

To twelve gallons of water when nearly boiling, and in the mash-tub, add the malt, and stir it well for twenty minutes; then add twenty gallons more; stir again, and cover over; let it stand three hours, draw it off and add twenty gallons more water, the same heat; the wort just drawn off is to be put into the copper, and boiled with half the hops for eighty minutes, or until the beer and hops, when taken out in a small bason, will divide: then it is boiled enough. Draw off the second mash, run four gallons of cold water through the grains, and boil with the remainder of the hops, for about one hour.

These two boilings, when taken out of the copper, are to be conveyed into the casks with the hops: the first boiling will make eighteen gallons of Ale, the second

eighteen gallons of Table Beer. Let them stand without the bungs, and in three days they will begin to work. Fill up with what works out, and in twelve or fourteen days, (when they cease working) bung up close. The Table Beer may be tapped in three days, the Ale in three weeks; and they will be clear as crystal, good-flavoured, and wholesome liquors.—Here is no yeast used, no trouble of cooling and working in the tubs—therefore a saving of the coolers; and the beer never turns ropy from being worked too hot.

	<i>s.</i>	<i>d.</i>	<i>£</i>	<i>s.</i>	<i>d.</i>
Three Bushels Malt, at 10 0	10	0	1	10	0
1½lb. of Hops..... at 1 6	1	6	0	2	3
			£1 12 3		

Will give

18 Gallons Ale at 1 3½	1	3½	1	3	3
18 Gallons Table Beer 0 6	0	6	0	9	0
			£1 12 3		

APPENDIX.

DIRECTIONS FOR BREWING WITH

NEEDHAM AND CO'S

Patent

PORTABLE FAMILY BREWING MACHINE,

*Which I can safely recommend to Families as
an easy, convenient, and certain mode
of brewing good Beer.*

The following Directions for Brewing with NEEDHAM and CO's Patent Portable Family Brewing Machine, have been permitted to form a part of this Volume by the Proprietor.

NEEDHAM AND CO's

Patent

PORTABLE FAMILY BREWING MACHINE.

THIS Machine, with the following directions, will enable any person without the knowledge of Brewing to make with ease and facility, fine home-brewed Ale and Beer, perfectly transparent, to keep sound any length of time, and at half the Price of buying it.

Suppose the Daily Consumption of Ale in a Family, 3 Pints; and of Table Beer 3 Pints: the Yearly Consumption of each is 137 Gallons,—the Brewers' Price would be as follows:

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Ale at 2 <i>s.</i> 6 <i>d.</i> per Gallon	17	2	6
Table Beer at 8 <i>d.</i> ditto	4	11	4

21 13 10

To brew the above quantity of good Ale and Table Beer, 15½ Bushels of Malt is required, the cost of which, at 10*s.* per Bushel, will be £7 12 6

11½lb. of best Hops for ditto,
at 1*s.* 3*d.* 0 14 4½

8 6 10½

Yearly saving in the above quantity—£13 6 11½

The preceding calculation sufficiently proves that the Patent Brewing Machine will, to the smallest Family who purchase Brewers' Beer, pay for itself in One Year ; and those who have been accustomed to brew by the old method, will find the Beer much stronger and better by using this Machine, and very considerably less likely to be spoiled in brewing, with a great saving in Fuel, Labour, and Time.

SOLD BY

WILLIAM FARLAR, 202, *Piccadilly, London,*
Sole Proprietor.

This MACHINE, being made of wrought Iron, tinned, is very sweet and durable. It combines, in one portable utensil, the Fire-place, Boiler, Mash Tun, Hop Back, and Working Tun: requires no fixing, takes very little room, and is easily moved away when not in use.

The capacity of the Machine is sufficient to make Nine Gallons of Ale, and Nine Gallons of Table Beer, from each bushel of Malt, which is the strength of six bushels of Malt to the Hogs-

head for Ale: and stronger may be made at pleasure, by reducing the quantity of water to the Malt.

The PRICES for Money.

Machine to Brew	1 Bushel of Malt,	£10 10	Two coolers of tinned Iron,	{	2	2
Ditto	2 ditto	16 16			5	5
Ditto	3 ditto	22 1			7	7
Ditto	4 ditto	28 7			9	9
Ditto	5 ditto	33 12			12	12
Ditto	6 ditto	37 16			15	15
Ditto	8 ditto	46 4			21	0
Ditto	10 ditto	54 12			26	5
Ditto	12 ditto	63 0			31	10

Larger Sizes made to order.

Observe. — The annexed quantity may be brewed with a One Bushel Machine. The larger the quantity of Beer brewed, the sooner the Machine pays for itself; the larger Machines being proportionably less in price.

Previously to brewing in the Machine the *first time*, half fill it with Water, and put in a quarter of a pound of Pearl or Wood Ashes to Eighteen Gallons of Water, and boil them; then draw off the Water into the Coolers, and wipe them all out clean and dry.

DIRECTIONS, &c.

To brew Ale, with Table Beer after, from the same Malt and Hops.

THE Machine being placed ready for use, as described in the Plate, figure G,* put your Malt into the cylinder D, (taking care none goes into the centre E, nor between the cylinder, and outside boiler B,) add twelve gallons of water to each bushel of Malt, then light your fire, and get your liquor to 180 degrees of heat as soon as possible, which must be ascertained by dipping the Thermometer one minute into the liquor, (in the centre E.) Having informed yourself the liquor is at 180 degrees of heat, stir the Malt well up with a mashing stick, or mashing iron, for ten minutes, to divide every particle of

* If any smoke should come from between the Boiler and Fire-place, a little dry Sand being dropped into the cavity, will prevent it.

Malt from each other, keeping the heat from 170 to 180 degrees for two hours; (to prevent the liquor from being over-heated, damp the fire with wet ashes, and leave the door open; be sure to keep the liquor to the heat of 170 or 180 degrees;) then draw off the Wort very gently (that it may run fine) into one of the Coolers, and put all the Hops (rubbing them through your hands, to break the lumps) on the top of the Wort, to keep it hot till the time for returning it into the Machine. Having drawn off your Ale Wort, put into the Machine ten gallons of cold water to each bushel of Malt. Brisk the fire, and make the liquor 180 degrees of heat as soon as possible, which must be ascertained by dipping the Thermometer one minute into the liquor, (in the centre E.) Having informed yourself the liquor is at 180 degrees of heat, stir the Malt well up, as before, for ten minutes, keeping the heat from 170 to 180 degrees for one hour and a half; than draw off this Table Beer Wort into the other Cooler, and cover it over to keep it hot, until the time for returning it into the Machine for boiling. Having drawn off the Table Beer Wort, clean the Machine from

the grains,* and return the first Wort into the Machine, with all the Hops, taking care the Hops are all within the cylinder D, and that none of them get into the centre E, or between the cylinder and outer boiler B. Make it boil as quick as you can, and let it boil one hour ; after which, damp the fire, and draw it off into a Cooler, or Coolers, which should be placed in the air, where it will cool quick ; then return the second Wort into the Machine, to the Hops, make it boil as quick as you can, and let it boil one hour ; put out the fire ; draw off the Wort, and put it into a Cooler placed in the air to cool quick. When the Worts in the Coolers are cooled down to 70 degrees of heat by the Thermometer, put the proportion of a gill of fresh thick Yeast to every nine gallons of Wort in the Coolers, first thinning the Yeast with a little of the Wort before you put it in, that it may the better mix ; and when the Ale Wort is cooled

* If the Machine is large, the perforated Cylinder has four handles, for the purpose of easy taking it out and in by a pulley and a rope, suspended over its centre, at a proper height.

down to 60 degrees of heat, draw it off from the Coolers, with the Yeast and sediment, and put it into the Machine Boiler, (the Machine Boiler having been previously cleared from the Hops and Cylinder,) which forms a convenient vessel, placed on its stand, for the Ale to ferment in, which must be kept fermenting in it with the cover on, until the head has the appearance of a thick Brown Yeast on the surface, an inch or two deep, which will take three or four days ; * when the head has this appearance, draw off the Beer free from the Yeast and bottoms into a clean Cask, which must be filled full,† and when done working, put in a handful of dry Hops,

* If the temperature of the weather is below 55 degrees of heat by the Thermometer, it will be better to place your fermenting vessel in a situation not exposed to the cold ; the cellar where you keep your Beer in would most likely be a good and handy place for this purpose.

† If the Cask intended for the Ale should not be full, fill it up from your Table Beer, or if more than enough, put the remainder to the Table Beer ; but this mixing you must regulate according to the strength you want your different sorts of Beer.

bung it down tight, and stow it in a cool cellar. This Ale will be fit to tap in three or four weeks.

The second Wort for Table Beer should be put from the Coolers, with Yeast and sediment, into an upright Cask, with the cover off, or top head out, at not exceeding 60 degrees of heat; and as soon as you perceive a Brown Yeast on the surface, draw it off free from the Yeast and bottoms into a clean Cask, which must be kept filled full, and when done working, put in a handful of dry Hops, bung it down tight, and stow it in a cool cellar. This Table Beer will be fit to tap in a week, or as soon as fine.

To make Table Ale.

Mix the first and second Worts together, and ferment it, and treat it the same as the Ale.

To brew Porter or Brown Beer, with Table Beer after, from the same Malt and Hops.

Use Pale and Brown Malt in equal quantities, ground coarse, and strong brown-coloured Hops of a glutinous quality. If the Beer is for present draught, three quarters of a pound of Hops to

each bushel of Malt will be sufficient, but if intended for Store Beer, use one pound to each Bushel of Malt.

The process of brewing is the same as described for brewing Ale with Table Beer after, except the heat of each mash must not be so high by 10 degrees, on account of the Brown Malt; the first Wort fermented by itself will be Stout Porter, and fit to tap in three or four weeks; the second Wort will be the Table Beer, and fit to tap in a week, or as soon as fine; but if you mix the first and second Worts together, the same as for Table Ale, it will be good common Porter.

To brew Table Beer only.

Let your Malt be of one sort, of a full Yellow colour, (not Brown Malt,) ground coarse, and strong Brown-coloured Hops, of a glutinous quality. If for present draught, half a pound of Hops to each bushel of Malt will be sufficient; but if for keeping two or three months, use one pound of Hops per bushel.

The process of brewing is the same as described for brewing Porter and Table Beer,

with the addition of another Wort; that is, filling the Machine a third time with water before you take out the grains, and treating the third Mash the same as the second.

The first drawing off, or Wort, with part of the second Wort, to be boiled (first) one hour with all the Hops, and the remainder of the second Wort with the third, to be boiled next one hour to the same Hops; these two boilings, when cooled down to 60 degrees of heat, (having put your Yeast to it in the Coolers at 70 degrees,) must be put together to ferment in the Machine Boiler, and as soon as it has the appearance of a Brown Yeast on the surface, draw it off into the Casks, which must be kept filled full; and when done working, put into each Cask a handful of dry Hops, bung it down tight, and put it into a cool cellar. Tap it in a week, or as soon as fine.

To preserve the Machine.

When the Brewing is over, wash the Machine and Coolers with cold or hot Water, then dry them, and put them away in a dry place: also clear the Smoke Pipe of the soot, which will in-

sure the fire drawing lively the next Brewing, when the Machine should be washed with boiling Water.

To keep Casks sweet.

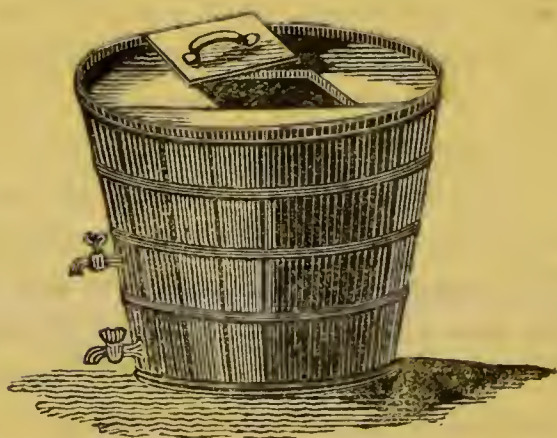
It is recommended, when a Cask of Beer is drawn off, to take out the Head, and scrub out the Cask, then thoroughly dry and put it away in a dry place, with the Head out.

If it should be inconvenient to take out the Head, and the Cask is wanted to be filled again quickly, it may be washed quite clean with warm Water, and afterwards with Lime Water; or the Grounds being left in the Cask, and every vent stopped, (bung, tap, and vent-holes,) it may be kept in that state for a short time.

Casks of a bell shape are preferable for private Brewing, and the Patentees make them upon a principle by which the inside can be scrubbed out clean without removing the Head, and at the same price as common Casks of that shape.

NEEDHAM AND CO.'S

(PATENTEES OF THE PORTABLE FAMILY
BREWING MACHINE)

Improved Bell Cask.

WHEN the Cask is filled, fasten the Cover down with some Brown Paper, or Cloth round the Edge, and cover the whole Head with Sand or Clay, which should be kept moist; this will prevent the external Air from penetrating and making the Beer flat. As soon as the Cask is empty, take out the Cover, and wash the Cask clean with hot Water, and drain it dry; then put it away in a dry place, with the Cover inside

the Cask ; but if intended to be filled again in two or three weeks, it may be left with the Grounds of the Beer in it, but the Tap and Vent-holes must be carefully stopped.

If the place where the Cask is kept when empty is damp, and it is not wanted to be filled soon, it should be washed with strong Lime-water, and drained dry, and the Cover put inside the Cask. It must be washed with hot Water, and drained, previous to its being filled with Beer.

Hogsheads hold	54 Gallons.
Barrels	36 ditto.
Half Hogsheads	27 ditto.
Kilderkins	18 ditto.
Firkins.....	9 ditto.

FINIS.



BOOKS

PRINTED FOR WETTON & JARVIS,

No. 65, PATERNOSTER-ROW.

1. THE WISDOM OF BEING RELIGIOUS, by ARCHBISHOP TILLOTSON. 12mo. Price 4s.

* * * The separate Publication of the above Work seems imperiously called for at this particular juncture, when attempts are making to disseminate infidelity by the revival of Works subversive of every principle of religion and social order.

2. THE DUTY AND REWARDS OF INDUSTRY. By the Rev. ISAAC BARROW, formerly of Trinity College, Cambridge. 12mo. Price 5s. extra boards.

3. BEAUTIES OF SINCERITY; being Extracts of upwards of 120 Sermons preached on the Death of HER ROYAL HIGHNESS THE PRINCESS CHARLOTTE. (The prominent parts of THIS TITLE ARE PRINTED IN GOLD.) With a Plate of the Funeral Procession. 8vo. Price 5s. 6d.

4. THE SUNDAY MORNING LESSONS, as they are appointed to be read in Churches, throughout the year. Together with the proper Lessons for certain Holidays. Second edition. Selected by ABRAHAM FLOWER. 12mo. Price 5s.

5. SPECIMENS IN ECCENTRIC CIRCULAR TURNING, with Practical Instructions for producing corresponding pieces in that art. By J. H. IBBETSON, Esq. Illustrated with more than Sixty Copper-Plates and Wood-Cuts. 8vo. 1l. 1s.

Every Amateur in the Art of Turning must doubtless be gratified when he is informed, that the Copper-Plates and Wood-Cuts in this Work, which are very numerous, were turned by the Author.

Books printed for Wetton and Jarvis.

6. GEORGE BIDDER'S (the Devonshire Youth, not thirteen years of age) MENTAL ARITHMETIC. 12mo. Price 2s.

7. LETTERS from a MOTHER to her DAUGHTER on going to SCHOOL, pointing out her Duties to her Maker, to her Governess, her School-fellows, and herself. By Mrs. SARGANT. Dedicated by permission to Mrs. BABINGTON. A new Edition, with Anecdotes; and a Presentation-leaf. Gilt edges, in a Box, Price 3s.

* * * "This little compendium of advice may be safely recommended, as well adapted to impress on the minds of young ladies a proper attention to their duties. A book of this kind (and we know of none superior to the present) should never be omitted in packing up the essential articles of the school trunk."—*Gentleman's Magazine*.

8. The YOUNG LADY'S CONDUCT and COMMON-PLACE BOOK, as recommended in LETTERS from a MOTHER to her DAUGHTER at SCHOOL. By Mrs. SARGANT. Price 2s.

9. In an embossed envelope, Price 1s. or 13 for 10s. A HOLIDAY LETTER FOR A YOUNG LADY, expressive of her Duties when Absent from School. By Mrs. SARGANT.

"Hope spreads her pinions. In a few short hours,
The joys of Home and Parents will be ours."

9. NEW BIOGRAPHICAL WORK.—Now publishing in Monthly Parts, 2s. 6d. each, SELECT BIOGRAPHY, or a Collection of LIVES OF EMINENT PERSONS who have done honour to their Country. From the best Authorities.—Eight Parts of this interesting Work have already appeared; consisting of the Lives of *Latimer, Gilpin, Cranmer, Wickliff* and *Lord Cobham*, by WILLIAM GILPIN, A.M.; and Lives of the Right Hon. *C. J. Fox*, Right Hon. *W. Pitt*, Lord Viscount *Nelson*, and the Duke of *Marlborough*.

THE FOLLOWING
NEW AND INTERESTING WORKS
ARE JUST PUBLISHED
BY THOMAS BOYS,

No. 7, LUDGATE-HILL, (FROM PATERNOSTER-ROW).

LESSONS OF THRIFT, published for general Benefit, by a Member of the Save-All Club. With highly humorous coloured plates, from designs by Cruickshank. Royal 8vo. 11. 1s. extra boards.

THE ENTOMOLOGIST'S USEFUL COMPENDIUM; or an Introduction to the Knowledge of British Insects: comprising the best means of obtaining and preserving them; together with the Genera of Linné, and the modern method of arrangement, &c. &c. By George Samouelle, Associate of the Linnæan Society of London. 1 vol. 8vo. with 12 very accurate plates, containing near 200 figures of Insects, &c. Price 11. in extra boards; a few copies finely coloured after nature, Price 11. 18s. extra bds.

Likewise by the same author, contained in the above,

A NOMENCLATURE of BRITISH ENTOMOLOGY; alphabetically arranged, and intended as Labels for Cabinets. Crown 8vo. Price 4s. 6d. extra bds.

CHEMICAL AMUSEMENT: being a Series of 167 curious and Instructive Experiments in Chemistry, which are easily performed, and unattended by danger. By Fredrick Accum, Operative Chemist. Fourth Edition, with plates by Lowry, and Additions. Demy 12mo. Price 9s. boards.

A PRACTICAL TREATISE on the USE and APPLICATION of CHEMICAL RE-AGENTS or TESTS. With concise Directions for Analyzing Metallic Ores, Earths, Metals, Soils, Manures, and Mineral Waters, illustrated by a Series of Experiments. Third Edition, with plates, and very considerably enlarged. By Fredrick Accum, Operative Chemist. 1 vol. 12mo. Price 9s. extra boards.

Books published by T. Boys, 7, Ludgate-Hill.

A TREATISE on the ART of MAKING GOOD and WHOLESOME BREAD of Wheat, Oats, Rye, Barley, and other Farinaceous Grain; exhibiting the Alimentary Properties and Chemical Constitution of different kinds of Bread Corn, and of the various Substitutes used for Bread in different parts of the world. By Fredrick Accum. 12mo. Price 4s. 6d. extra boards.

ELEVATIONS, SECTIONS, and PLANS, of the most Improved GAS LIGHT APPARATUS now employed at the GAS WORKS in LONDON, and the principal Provincial Towns in Great Britain. With a Description of the Process of Manufacturing COAL GAS, for the Lighting of Streets, Houses, and Public Buildings; accompanied with comparative Estimates, exhibiting the most economical mode of procuring this species of Light. With 7 useful coloured plates. By Fredrick Accum. Second Edition. 8vo. Price 15s. in extra boards.

POETICAL TRIBUTES to the MEMORY of KING GEORGE the THIRD. 8vo. Price 1s. 6d.

CHRYSTALLINA: or the Butterfly's Gala: a Poem. In 6 Parts, viz. the Ball, the Masquerade, the Race, the Theatre, the Tournament, the Departure. By Captain Barton, R. N. With 7 engravings, from designs by Thurston. Price 1s. plain, or 1s. 6d. col.

CURSORY REMARKS on BATHING; to which are added, Observations on Sir Arthur Clarke's Essay on Bathing. 12mo. Price 2s. 6d. extra boards.

POEMS, including JERUSALEM, a Prize Poem. By Chauncy Hare Townsend.

ENDLESS AMUSEMENT; a Collection of upwards of Four Hundred Entertaining Experiments in various Branches of Science. 18mo. 2s. 6d. boards.

In the Press, and will be published very shortly,

CURIOSITIES for the INGENIOUS, 1 vol. 18mo.

* * * This pleasing little volume is intended as an accompaniment to "Endless Amusement."



RECORD OF TREATMENT, EXTRACTION, REPAIR, etc.

Pressmark:

Binding Ref No: 3371

Microfilm No:

Date

Nov 98

Particulars

Chemical Treatment

Fumigation

Deacidification

Penicillium liquid

Lamination

Solvents

Leather Treatment

Adhesives

Remarks

